

substrate, a magnetic layer formed on the substrate, a protective layer formed on the magnetic layer and a lubricant layer formed on the protective layer, the lubricant layer being formed of a mixture of the above compound (A) and the above compound (B), and there is also provided a process for the manufacture of a magnetic recording disk comprising a substrate, a magnetic layer formed on the substrate, a protective layer formed on the magnetic layer and a lubricant layer formed on the protective layer, the process comprising mixing the compound (A) and the compound (B) and forming the above lubricant layer from the thus-obtained mixture.

The above lubricant mixture is prepared and applied onto the protective layer to form a lubricant layer, whereby the magnetic recording disk of the present invention can be suitably obtained.

[0044]

In the present invention, the method of forming the lubricant layer is not specially limited, and it can be selected from various layer-forming methods such as a dip coating method, a spin coating method, a spray method and a vapor coating method. In the present invention, further, when the lubricant layer is formed from a dispersion of the lubricant(s) in a solvent, any solvent can be selected so long as it can properly disperse the lubricants.

Particularly, a fluorine-containing solvent is preferred, since it can properly disperse and dissolve the lubricant containing the perfluoropolyether as a main chain. When Vertrel XF supplied by DU PONT-MITSUI FLUOROCHEMICALS COMPANY, LTD., or HFE7100 supplied by 3M Co., Ltd. is used as a fluorine-containing solvent, particularly preferably, there can be obtained a solution or dispersion in which the

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molecular weight of 3,000 and a polydispersity of 1.06, prepared by molecular weight purification, purified by a supercritical extraction method, were mixed in a compound (A):compound (B) weight ratio of 1:1, to prepare a lubricant mixture. The lubricant mixture was dispersed and dissolved in Vertrel XF that was fluorine-containing solvent supplied by DU PONT-MITSUI FLUOROCHEMICALS COMPANY, Ltd., to prepare a solution having a lubricant mixture concentration of 0.02 % by weight. The above magnetic recording disk having layers formed up to the protective layer 5 was dipped in the above solution to form the lubricant layer 6. Then, the magnetic recording disk 10 was heat-treated in a vacuum calcining furnace at 130°C for 90 minutes, to give a 2.5-inch magnetic recording disk 10 of this Example. The above magnetic recording disk 10 was evaluated for performances. Table 1 shows the results.

line 11 → [0060]

Example 2 - 5 and Comparative Example 1 and 2

Magnetic recording disks were produced in the same manner as in Example 1 except that the lubricant mixture was replaced with a lubricant mixture containing the compound (A) of the formula (I) and the compound (B) of the formula (II) in a compound (A):compound (B) weight ratio of 4:6 (Example 2), 2:8 (Example 3), 6:4 (Example 4) or 8:2 (Example 5) or that the lubricant mixture was replaced with a lubricant containing the compound of the formula (II) alone (Comparative Example 1) or a lubricant containing the compound of the formula (I) alone (Comparative Example 2).

[0061]

The above magnetic recording disks were evaluated for performances. Table 1 shows the results.

[0062]